LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

1.   (Currently Amended) A liquid crystal display device, comprising:

a liquid crystal display panel having pixels for displaying an image; and

a light shutter on the liquid crystal display panel operable to transmit and shut off a polarized light emitted from the liquid crystal display panel during every field period,

wherein every field period is initiated upon a first transition of a gate signal from a low voltage signal to a high voltage signal to apply grayscale image data to the pixels and is terminated upon a next transition of the gate signal from a low voltage signal to a high voltage signal to apply grayscale image data to the pixels, and wherein every field period corresponds to only one grayscale image data value,

and wherein the light shutter is opened at a first transition of the gate signal such that the transmittance of light shutter is substantially zero before opening and closed after the first transition of the gate signal and before the next transition of the gate signal per every frame period for each pixel such that the transmittance of light shutter is substantially zero after closing.

2.   (Original) The liquid crystal display device according to claim 1, wherein the light shutter includes,

a liquid crystal between two glass substrates, and

a plurality of electrodes on the two glass substrates to drive the liquid crystal.

3.   (Previously Presented) The liquid crystal display device according to claim 1, wherein the light shutter has a polarizer to transmit a linearly polarized light.

4.   (Original) The liquid crystal display device according to claim 1, wherein the liquid crystal display panel and the light shutter are bonded with each other and have a polarizer therebetween.

5.   (Original) The liquid crystal display device according to claim 1, wherein the liquid crystal display panel and the light shutter are bonded to a single glass substrate.

6. (Original) The liquid crystal display device according to claim 1, further comprising a backlight irradiating a light toward the liquid crystal display panel.

7. (Currently Amended) An apparatus for driving a liquid crystal display, comprising:

a liquid crystal display panel having a pixel for displaying an image;

a light shutter on the liquid crystal display panel operable to transmit and shut off a polarized light emitted from the liquid crystal display panel during every field period;

a controller generating a shutter control signal to open or close the light shutter; and

a light shutter driver responding to the shutter control signal to drive the light shutter,

wherein every field period is initiated upon a first transition of a gate signal from a low voltage signal to a high voltage signal to apply grayscale image data to the pixels and is terminated upon a next transition of the gate signal from a low voltage signal to a high voltage signal to apply grayscale image data to the pixel, and wherein every field period corresponds to only one grayscale image data value,

and wherein the light shutter is opened at a first transition of the gate signal such that the transmittance of light shutter is substantially zero before opening and closed after the first transition of the gate signal and before the next transition of the gate signal per every frame period for each pixel such that the transmittance of light shutter is substantially zero after closing.

8. (Original) The apparatus according to claim 7, wherein the shutter control signal has an inverse polarity after video data having an inverse polarity are applied to the liquid crystal display panel.

9. (Original) The apparatus according to claim 7, wherein the shutter control signal is a pulse signal having a first logical value turning on the light shutter and a second logical value turning off the light shutter.

10. (Original) The apparatus according to claim 7, further comprising,

a data driver connected to a plurality of data lines of the liquid crystal display panel to apply video data to the data lines, and

a gate driver connected to a plurality of gate lines of the liquid crystal display panel to apply a scanning signal to the gate lines.

11.   (Original) The apparatus according to claim 10, wherein the data driver is connected to the controller that generates the video data and a dot clock and controls the data driver, and the gate driver is connected to the controller that generates a gate start pulse allowing the scanning signal to be sequentially generated and controls the gate driver.

12.   (Original) The apparatus according to claim 7, wherein the shutter control signal has a first logical value in an initial field interval when video data are applied to the liquid crystal display panel and has a second logical value in a time interval when the video data are maintained at the liquid crystal display panel.

13.   (Currently Amended) A method of driving a liquid crystal display having a light shutter on the liquid crystal display panel, comprising:

supplying video data to a liquid crystal display panel having a pixel for displaying [[an]] a grayscale image, according to a gate signal; and

opening the light shutter at a first transition of the gate signal from a low voltage signal to a high voltage signal such that the transmittance of light shutter is substantially zero before opening; and

closing the light shutter after the first transition of the gate signal and before a next transition of the gate signal from a low voltage signal to a high voltage signal per every frame period for each pixel such that the transmittance of light shutter is substantially zero after closing.

14.   (Previously Presented) The method according to claim 13, further comprising:

applying a shutter control signal having a first logical value in an initial field interval when the video data are applied to the liquid crystal display panel, and a second logical value in a time interval when the video data are maintained at the liquid crystal display panel.